

BENTOMAT AS4000-A Self

GEOSYNTHETIC CLAY LINER (GCL)

BENTOMAT AS4000-A Self is a reinforced GCL consisting of a layer of sodium bentonite between a woven and a nonwoven geotextile, which are needlepunched together to provide internal reinforcement. The internal reinforcement minimizes clay shifting, thus allowing the GCL to maintain consistent low permeability and maximum performance under a wide variety of field conditions.

TECHNICAL DATA			
MATERIAL PROPERTY	TEST METHOD	VALUE	TEST FREQUENCY
GCL			
Hydraulic Conductivity	ASTM D 5887	$\leq 5,0 \times 10^{-11}$ m/s	25000 m ²
Total Mass/Unit Area ⁽¹⁾	ASTM D 5993	$\geq 4,30$ kg/m ²	4000 m ²
Bentonite Mass/Unit Area ⁽¹⁾	ASTM D 5993	$\geq 3,70$ kg/m ²	4000 m ²
Tensile Strength MD	ASTM D 6768	$\geq 12,0$ kN/m	20000 m ²
CBR Elongation	AS3706.4	≥ 25 %	25000 m ²
Peel Strength ⁽²⁾	ASTM D 6496	≥ 360 N/m	4000 m ²
Roll Length	—	40,0 m	Continuous
Roll Width	—	5,0 m	Continuous
BENTONITE			
Free Swell	ASTM D 5890	≥ 24 ml/2 g	50 tons
Fluid Loss	ASTM D 5891	≤ 15 ml	50 tons
Montmorillonite Content	XRD	$\geq 70\%$	2 tests
Cation Exchange Capacity	TP-1016	≥ 70 meq/100g	2 tests
GEOTEXTILES (PP)			
Non-Woven Mass/Unit Area	EN ISO 9864	200 g/m ²	Certified by supplier
Woven Mass/Unit Area	EN ISO 9864	130 g/m ²	Certified by supplier

Bentonite powder is impregnated into longitudinal overlap area 50cm from both sides.

Notes:

¹ Bentonite mass/unit area reported at 0% moisture content

² Peel Strength testing is performed in machine direction